

## Environmental Protection Agency

## § 142.65

EFFECTIVE DATE NOTE: At 69 FR 38857, June 29, 2004, § 142.62 was amended by removing the citation “103.35” and adding in its place “165.110”, effective July 29, 2004.

### § 142.63 Variances and exemptions from the maximum contaminant level for total coliforms.

(a) No variances or exemptions from the maximum contaminant level in § 141.63 of this chapter are permitted.

(b) EPA has stayed the effective date of this section relating to the total coliform MCL of § 141.63(a) of this chapter for systems that demonstrate to the State that the violation of the total coliform MCL is due to a persistent growth of total coliforms in the distribution system rather than fecal or pathogenic contamination, a treatment lapse or deficiency, or a problem in the operation or maintenance of the distribution system.

[54 FR 27568, June 29, 1989, as amended at 56 FR 1557, Jan. 15, 1991]

### § 142.64 Variances and exemptions from the requirements of part 141, subpart H—Filtration and Disinfection.

(a) No variances from the requirements in part 141, subpart H are permitted.

(b) No exemptions from the requirements in § 141.72 (a)(3) and (b)(2) to provide disinfection are permitted.

[54 FR 27540, June 29, 1989]

### § 142.65 Variances and exemptions from the maximum contaminant levels for radionuclides.

(a)(1) Variances and exemptions from the maximum contaminant levels for

combined radium-226 and radium-228, uranium, gross alpha particle activity (excluding Radon and Uranium), and beta particle and photon radioactivity.

(i) The Administrator, pursuant to section 1415(a)(1)(A) of the Act, hereby identifies the following as the best available technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for the radionuclides listed in § 141.66(b), (c), (d), and (e) of this chapter, for the purposes of issuing variances and exemptions, as shown in Table A to this paragraph.

TABLE A—BAT FOR RADIONUCLIDES LISTED IN § 141.66

Contaminant	BAT
Combined radium-226 and radium-228.	Ion exchange, reverse osmosis, lime softening.
Uranium .....	Ion exchange, reverse osmosis, lime softening, coagulation/filtration.
Gross alpha particle activity (excluding radon and uranium).	Reverse osmosis.
Beta particle and photon radioactivity.	Ion exchange, reverse osmosis.

(ii) In addition, the Administrator hereby identifies the following as the best available technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for the radionuclides listed in § 141.66(b), (c), (d), and (e) of this chapter, for the purposes of issuing variances and exemptions to small drinking water systems, defined here as those serving 10,000 persons or fewer, as shown in Table C to this paragraph.

TABLE B—LIST OF SMALL SYSTEMS COMPLIANCE TECHNOLOGIES FOR RADIONUCLIDES AND LIMITATIONS TO USE

Unit technologies	Limitations (see footnotes)	Operator skill level required <sup>1</sup>	Raw water quality range & considerations <sup>1</sup>
1. Ion exchange (IE) .....	(a)	Intermediate .....	All ground waters.
2. Point of use (POU <sup>2</sup> ) IE .....	(b)	Basic .....	All ground waters.
3. Reverse osmosis (RO) .....	(c)	Advanced .....	Surface waters usually require pre-filtration.
4. POU <sup>2</sup> RO .....	(b)	Basic .....	Surface waters usually require pre-filtration.
5. Lime softening .....	(d)	Advanced .....	All waters.
6. Green sand filtration .....	(e)	Basic .....	
7. Co-precipitation with barium sulfate ...	(f)	Intermediate to Advanced .....	Ground waters with suitable water quality.
8. Electrodialysis/electrodialysis reversal		Basic to Intermediate .....	All ground waters.
9. Pre-formed hydrous manganese oxide filtration.	(g)	Intermediate .....	All ground waters.